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**THE WAR ON DRUGS: MEASURING THE EFFECTIVENESS OF
NATIONAL GUARD EFFORTS IN PREVENTING DRUG USE
AMONG AMERICA'S YOUTH**

BY

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USAWC MILITARY STUDIES PROGRAM PAPER

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**THE WAR ON DRUGS: MEASURING THE EFFECTIVENESS OF NATIONAL
GUARD EFFORTS IN PREVENTING DRUG USE AMONG AMERICA'S YOUTH**

AN INDIVIDUAL STUDY PROJECT

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ABSTRACT

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Active since 1987 in drug interdiction and other counter-supply operations, the National Guard has recently completed a pilot program in Drug Demand Reduction, utilizing the states of New Mexico and New York as models. The initial success experienced by National Guard prevention efforts in each of these states indicates that the Guard can potentially be an effective force in conducting certain aspects of prevention operations at the state and local levels. Its resources, particularly the manpower and training that the Guard can bring to bear in this area, could make a significant difference if used properly to facilitate and support youth prevention efforts. The intent of this research project is to determine the effectiveness of specific National Guard prevention efforts in reducing the demand for illegal drugs among the youth of our country. The results of this study could be utilized to validate current programs and to target future National Guard initiatives in the prevention arena on a national, state, or community-wide basis.

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INTRODUCTION

The proliferation and use of illicit and illegal drugs has reached epidemic proportions in the United States during the past few decades. This problem undermines the very values and ideals of American society, while threatening the very tenets of our national security.¹

The threat emanates from a multitude of sources, both internal and external to our borders. The main sources of production are Central and South America, as well as Southeast, Southwest, and Central Asia.² Recently, however, the United States has joined these areas as one of the worldwide leaders in marijuana production. Today, marijuana is the nation's number one cash crop.³

It is estimated that the production of illegal drugs is a \$300 billion dollar per year industry;⁴ but production is only part of the equation--demand is the other part. Both supply and demand are interrelated. Demand drives production and additional production creates additional demand.

It is significant to note that the biggest consumer of illegal and illicit drugs today is the United States.⁵ Estimates indicate that over 75 million Americans have experimented with illegal drugs; 12.6 million have used them within the last month, and 6.3 million use illegal drugs on a regular basis.⁶

The hardest hit segment of the population appears to be our youth. It is estimated that over 1.4 million of our youth are current drug users.⁷ This represents approximately one-third of the total high school and college student population.⁸ Regular cocaine usage alone is estimated to range over 83,000 in this age group.⁹

Marijuana and hashish appear to be the most common drugs on the market, but experts agree that cocaine and crack, because of their increasing availability, pose the greatest threat to this country, and heroin threatens to join them to form an even more dangerous triad.¹⁰ Inhalants, stimulants, hallucinogens, and other drugs are growing in popularity.¹¹

Particularly alarming is the link between crime and drug use. This is reflected in that 3 of 4 inmates admit to a history of drug use, more than 40 percent used drugs in the month before their offense, and over 50 percent of the violent criminals claim to have been under the influence of drugs at the time that they committed their crimes. Drug testing results of persons arrested in the United States for serious crimes such as murder, robbery, burglary, rape, and manslaughter reflect similar trends.¹²

Similar trends are evident when one examines the recent rise of gangs among America's youth. Studies demonstrate that drug use and crime go hand-in-hand with this new phenomenon, and the marked tendency toward increasing violence clearly mandates that action must be taken to curb the dangers posed by this ever growing subculture.¹³

The statistics noted are just the tip of the iceberg. High infant mortality rates, teen pregnancies, a general decline in work productivity, the spread of AIDS, and a myriad of other social problems trace their origins to the proliferation of drugs within virtually every segment of society.¹⁴ More than any other group in America, it is our youth, particularly those who have not yet surrendered to this threat, who must face the challenges inherent to solving this problem. It is they who must steadfastly hold the line

between use and nonuser in order for tomorrow to be a safer and more secure world for future generations to come.

Since President Reagan's declaration of a "War on Drugs" on August 4, 1986, and his subsequent issuance of National Security Decision Directive (NSDD) 221, all elements of national power, including our Armed Forces, have been commissioned to counter the threat posed by illegal drugs to our national security.¹⁵ Since President Bush published America's first National Drug Control Strategy in 1989, and most recently President Clinton's current strategy, our country has been fighting the war on two fronts: counter-supply and counter-demand.¹⁶

Counter-supply focuses on attacking the proliferation of illegal drugs by interdicting the sources and means of production, transportation, distribution, both internal and external to our borders. Its objective is to stop the supply of illegal drugs before they can be sold to consumers. Counter-demand focuses on testing, prevention, and rehabilitation efforts to reduce or eliminate the market that the cartels have been effective in.¹⁷ In reality, a study of simple economics points to both supply and demand as interrelated factors. Supply feeds demand, and demand drives supply--they are not mutually exclusive. The key is to achieve a proper balance in a manner which will optimize the effectiveness of the counter-drug effort.¹⁸

DEVELOPING A STUDY

As in traditional warfighting, the focus in counter-drug operations at the strategic and operational levels must be oriented on the enemy's center of gravity. Until recently, the enemy's perceived center of gravity has been the producers and suppliers of illegal drugs. Several major and numerous minor operations to strike at the sources of production and distribution have been executed, but overall they have met with mixed results.¹⁹ Recent estimates demonstrate that only approximately 15 percent of the illegal drugs produced have been intercepted and eradicated.²⁰

Unlike his predecessors, President Clinton perceives the center of gravity to be the demand for illegal drugs. As such, the Clinton Administration has shifted the emphasis of operations from the counter-supply to the counter-demand arena, specifically focusing on the family setting as the tool for prevention. This shift is reflected in Presidential Decision Directive 14, signed by President Clinton on November 3, 1993. This directive establishes the framework for the Administration's new counter-drug program and outlines increasingly vital role that the military will play in both the counter-supply and counter-demand arenas.²¹ Within the Armed Forces, one of the key players in both arenas will continue to be the National Guard. Given a mission by Constitutional and statutory authority to counter both foreign and domestic threats to national security and not constrained by the limitations of "posse comitatus" while serving in its state role, the Guard can make a significant contributions to both the counter-supply and counter-demand efforts.²²

If effective prevention measures can be determined and validated, all levels of government would be in a better position to efficiently and effectively employ all assets under their control, including the National Guard, in the counter-demand efforts. Depending upon the hypotheses that are "proved", the results of this study could lead to the development of a national prevention strategy that would result in a significant reduction in drug demand and in an eventual solution to the problem which today poses the greatest threat to our country, its values, and its institutions.

There are some key assumptions about this threat/problem which are key to this study:

- That the use and abuse of illegal drugs pose a serious threat to our country's moral fiber, ideals, values, health, and national security.
- That the vast majority of Americans view the elimination or reduction of the proliferation and use of illegal drugs as an imperative.
- That the use/abuse of illegal drugs have reached enormous proportions in the United States
- That the use/abuse of illegal drugs has impacted negatively on virtually every segment of American society.
- That adolescents and our youth ages 10-21 are considered at risk for drug use initiation and/or abuse because illegal drugs remain available and accessible.
- That both counter - supply and counter - demand efforts are necessary to eliminate and/or reduce the threat.

- That the President and Congress will continue to wage the “War On Drugs” both the supply and demand issues.
- That every aspect of national power, to include the Armed Forces, will be used in the counter - drug arena.
- That states and local communities will resource and develop counter - drug strategies.
- That the National Guard will continue to support state and local community initiatives in the counter - drug arena.
- That the National Guard will continue to remain exempt from the limitations of “posse comitatus” in its support role.
- That counter - supply operations, will not totally stop the proliferation of illegal drugs.
- That counter - demand operations will increase based on current Presidential guidance.
- That the National Guard is available to state and local governments’ efforts to provide manpower, training, equipment, and facilities.
- That National Guard counter - demand prevention program guidelines will be uniformly developed and implemented across the nation.
- That governmental leaders, law enforcement officers, educators, intervention groups, and other organizations welcome National Guard assistance in drug - demand reduction efforts.

- That school districts and schools will welcome and support National Guard prevention initiatives.
- That participating schools will be socially, demographically, and geographically diverse enough to ensure generalizability of the test sample.
- That the target age group for program initiation will be at the mid - school level ages 12-15.
- That the National Guard cognitive - behavioral programs are the only prevention programs implemented in the schools participating in this research program.
- Students will provide accurate self - report data.

ANALYSIS OF PREVIOUS STUDIES

In evaluating the National Guards role in the "War on Drugs", it is important to analyze previous studies in an effort to determine the best possible method to utilize the guard in this endeavor. Therefore, one study was reviewed and critiqued with the following results.

Study by: Gilbert J. Botvin, Eli Baker, Linda Dusenbury, Stephanie Tortu, and Elizabeth M. Botvin, "Preventing Adolescent Drug Abuse Through A Multi-Model Cognitive - Behavior Approach: Results of a 3 year Study," Journal of Consulting and Clinical Psychology, Vol. 58, No. 4, August 1990: p. 437-446.

Botvin and his colleagues reject the "traditional" substance abuse prevention approaches. These approaches focus on (a) the presentation of factual information concerning the adverse consequences of drug use, (b) efforts to promote personal growth through experimental classroom activities, or (c) involvement in organized youth activities as a positive alternative to drug use.²³

Botvin's thesis is that substance use onset is "the result of the interplay of social and interpersonal factors on the individual."²⁴ He subscribes to the hypothesis that substance use behavior, like other behavior, is learned through a process of modeling and reinforcement and that it is mediated by interpersonal factors such as cognition's, attitudes, expectations, and personality. He goes on to hypothesize that it is promoted and supported by social influences from peers, family members, and the media, while contending that vulnerability to these influences is determined by domain-specific conditions, cognition's, attitudes, and expectations as well as the possession of skill for coping with the temptation of substance availability. He emphasizes the importance of skills for coping with a broad variety of life situations, along with interpersonal factors such as self-efficacy and self-esteem, which he deems susceptible to interpersonal influences and motivation.

Botvin goes on to cite numerous studies by R. I. Evans and others whose research support his position and contends that a more effective prevention approach might involve teaching (a) domain - specific skills, knowledge, attitudes, and expectations to adolescents to enable them to resist negative social influences, and (b) generic personal

and social skills to increase overall competence and promote the development of interpersonal characteristics like self - efficacy and self - esteem that are associated with decreased substance use risk.²⁵ Previous studies indicate that this approach is effective, and that it can be provided by a variety of facilitators with minimal training. Prior research suggests that it has been found to impact on a number of hypothesized mediating variables, and to be effective with rural, suburban, and urban students in several states.

In conducting this study Botvin's thesis was that the cognitive - behavioral training approach would effectively prevent substance abuse among adolescents. His study was designed to examine the general applicability of this approach to other forms of substance use/abuse, and to determine if this prevention approach could be packaged in a manner that would make large - scale dissemination feasible, while retaining its effectiveness. The Botvin team hypothesized that, by the end of the study, the students in the prevention program would (a) have lower levels of substance use than the control subjects; (b) be more knowledgeable about the prevalence, social acceptability, and negative consequences of substance use; (c) view substance use as negative and less narrative; (d) have better domain - specific and generic skills; and (e) have higher self - efficacy and self - esteem and lower anxiety levels.

In a randomized block design, schools were selected to receive (a) the prevention program with formal facilitator training and implementation feedback, (b) the prevention program with videotaped provider training and no feedback, or (c) no prevention training. The Life Skills Training (LST) Program developed by Botvin consisted of curriculum units that included substance use information, decisionmaking, media influences, self -

directed behavior change, anxiety management, communication skills, social skills, and assertiveness training. Before program implementation, all teachers in the formalized program attended a 1-day workshop conducted by project staff. All teachers in the videotape program were provided with a 2 hour videotape accompanied by written instructions and curriculum materials, but no reinforcement.

All students were pretested by questionnaires by project staff immediately before implementation of the program. Pretest variables were cigarette smoking, marijuana use, knowledge measures, attitudes, narrative beliefs, skills assertiveness, and psychological characteristics. A statistical analysis was conducted to determine pretest comparability of the three experimental conditions for the major dependent variables, and no significant conditions were found indicating a high comparability between conditions at pretest.

Program implementation was continuously monitored by the project staff, and quantitative assessments were made. Regular classroom teachers, selected by participating schools, served as program provider/facilitators, and examination of classroom observational data indicated that the prevention program was not uniformly implemented by participating researchers. Quantitative measures of the amount of intervention material covered varied from a low of 27 percent to a high of 97 percent, with a mean of 68 percent. Inspection of the distribution of implementation scores indicated that 75 percent of the students in the prevention conditions were exposed to 60 percent or more of the program, and these were included in the analyses of program effectiveness.

Results of the study indicate that significant prevention effects were experienced in both prevention conditions for cigarette smoking, moderate alcohol use, and marijuana use. Prevention effects were also evidenced in the areas of knowledge covering substance abuse, attitudes, interpersonal skills, and communications skills.

The findings of the Botvin study provide additional support for the effectiveness of a cognitive - behavioral approach to substance abuse prevention. These results coincide with the results of previous studies and provide one of the largest and most rigorous tests of the LST concept approach to date. The fact that this study was conducted under real world conditions, counters previous criticisms of similar studies and indicates that this type of program is effective as an exportable training package. It also indicates that generic program providers such as classroom teachers selected by the schools themselves, operating under scheduling subject to integration within the normal curriculum and subject to competing demands on time under less than optimal conditions, can still have a significant positive impact.

The results of this study also indicates that this prevention approach worked when implemented under the two different intervention conditions, impacting significantly on a number of hypothesized mediating variables in a direction consistent with nonuse of substances. These results provide partial evidence supporting the validity of the cognitive - behavioral prevention model. A weakness of this study is the absence of a more direct assessment of the skills taught in this program and a more focused examination of which skills are most critical in ensuring program effectiveness. Future research is needed in this area.

Interpretations of the findings must be tempered, however, by two factors that limit this study. First, while an effort was made to increase generalability of the test population by including students from geographically and demographically dispersed schools, the population for this study consisted of predominately white, middle class, suburban and rural students. Similar studies involving urban minority populations conducted by Botvin and others provide support for the generalability of this approach, but caution is still warranted in this arena.

Secondly, this and other school - based prevention studies have experienced a high rate of attrition rates among substance abusers. While the attrition of substance abusers was not a differential with respect to test conditions, thereby maintaining the internal validity of this study, the general tendency of abusers to drop out of studies of this type limit their external validity. This points to the contention that additional research is necessary to determine the effectiveness of this and other types of intervention approaches on those whom may be in the highest categories of risk.

Future research should also be directed toward developing methods for improving the completion of program implementation either by assisting the schools in provider training, specifying additional implementation guidelines, or reducing the administrative burdens imposed on the providers. It is apparent that additional research is necessary to facilitate the adoption and implementation of cognitive - behavioral approaches to substance prevention. In determining specific prevention measures, sociological and psychological causative factors influencing the use of illegal drugs may be determined and measures developed to counteract these causative factors. These must be examined

either on an individual basis or within certain identifiable target groups. The ability to influence or eliminate these causative factors could facilitate and enhance prevention efforts and could result in the evolution of an enhanced method of intervention that could be effective in combating illegal drug use among our youth, in varied environments, across the nation.

ANALYSIS OF THE NATIONAL GUARD ROLE

Though not definitive, this study suggests promise in the use of research to contribute to the development of appropriate and timely intervention strategies for adolescents. The prevention of the use of illegal drugs by adolescents can be prevented through the employment of cognitive - behavioral programs. Students who have completed a "Guardsmen Only Teach Children Healthy Attitudes (GOTCHA)"; National Guard Role Model"; and an "National Guard Adopt A School" Program, are less likely to initiate illegal drug use than students who have never completed these programs.

Students who have completed a National Guard sponsored mid - school level cognitive - behavior education program that teaches students skills for building self - esteem, resisting advertising pressure, managing anxiety, communicating effectively, developing personal relationships, and asserting oneself are less likely to initiate substance use/abuse. National Guardsmen could be used to facilitate this program within the local middle schools, employing demonstrations, behavioral rehearsal, feedback reinforcement, and behavioral out of school assignments as tools for implementation.

Botvin's type research method could be used to determine which Guard program would best suit the needs of various schools.

Botvin's research method measures a potential means to promote prevention behavior, which goes hand in hand with ongoing National Guard programs. These studies and programs combined could achieve a higher degree of Guard success across our nation. However, even though the program curriculum is standardized, the quality of instruction and the degree of implementation may vary from state to state, or school to school. Other researchers using the Botvin method and analyzing various Guard programs may be able to come up with similar number of students who have completed the program once the instructional package is distributed. This ongoing data collection and analysis would be invaluable to improving how the Guard can make a significant impact on the prevention efforts with our youth.

Indicators can be obtained by gathering data from local and state education agencies; local schools participating in the program, and the National Guard Bureau. This data will measure the number of students completing the courses. If data is incomplete or lacks detail results will be different. Someone with resources such as national polling organization, i.e. Gallup, a national sample of students could be obtained and analyzed. Data from survey results administered immediately after program completion, one , two and three years after completion of program and preceded by a test to increase accuracy of subsequent self - reports. The data will measure the number of those initiating drug use. The use of this data can assist in implementing/designing a

Guard cognitive - behavioral intervention program that targets the needs of a particular state or local.

This type of intervention program can be implemented throughout the National Guard of each state in conjunction with each State Department of Education. The program can be conducted at little or no additional costs to the school districts. The methodology that could be used for this hypothesis is one of Experimental Designs (Classic, Multi-group, Multi-group Time Series, Solomon Four -Group). The following provides suggestive ways that these designs could be used/applied:

-- Experimental Design, Classic, Multi-Group, Multi-Group Time Series, Solomon Four-Group would be appropriate in that one or more groups could be selected that receive a test stimulus and control groups that do not. One could choose one or more schools that participate in the "GOTCHA" program to serve as the control group. In this manner, one could actually choose groups of students, if not individual students, that participate and those that do not. Using, a pre-test and a post-test or a series of post - tests, the dependent variable can be measured both before and after the experimental stimulus is given. These would be inappropriate in that it would be difficult to control when and under what circumstances the experimental group is exposed to the test stimulus and the environment of the subjects in order to control or exclude extraneous factors that might affect the depend variable.

-- Experimental Design (Field). This would be appropriate for the same reasons cited under Experimental Designs. Since field experiments differ from laboratory experiments because the environment in which the subjects react cannot be completely

controlled, this type of design is even more appropriate to the type of research that is being undertaken, and, in fact, may add to the external validity of the experiment because it can demonstrate the applicability of the findings in a real - world environment.

-- Non-Experimental Design (Pre -Test/Post-Test, Interrupted Time Series).

These would be appropriate in so far as one cannot control the assignment of subjects to the experimental group or occurrence of interceding variables. But these would be inappropriate since both involve only one group that receives the test stimulus and no control group, and therefore, there is no way to determine that a change in the dependent variable is due to the test stimulus and not to other factors.

-- Cross - Sectional Design. This design would be appropriate in that there is a naturally occurring experimental group (those who have taken the "GOTCHA" program or those who are taking the program) and a naturally occurring control group (those who have not taken the "GOTCHA" program and those who are not taking the program). It would be inappropriate in that since all measures are taken at one point in time without a pre-test, and it would not be certain that the drug initiation did not occur or to what rate it did occur in the experimental or control group (s) prior to the introduction of the test stimulus. In this method of research design, researchers attempt to remove the effect of other factors by controlling them statistically, yet holding these factors constant is problematic and virtually impossible since it is difficult to be sure that all relevant variables have been effectually controlled.

-- Panel Study Design. This would be appropriate. The panel study design is a cross-sectional design that provides for the creation of quasi-experimental and a quasi-

control group (s) and the use of a pre-test to measure some of the phenomenon prior to the introduction of the test stimulus. The panel design could be used to measure the dependent variables using the same unit of analysis at several points in time and is similar to the cross - sectional study in that the variables within the study are measured at the same time and the researcher has no control over which subjects are exposed to the experimental stimulus. As such, one could assess that this type of design allows the researcher to reach more confident conclusions than with any other non-experimental design.

-- Case Study Design. This would be appropriate, because one could assess whether a statistical correlation between independent and dependent variables discovered using a cross-sectional design with survey data, is casual. By choosing a case in which the appropriate values of the different variables are present, one can determine whether there is an actual link between the variables and can therefore support an explanation for statistical association. They can be used to determine whether there is a link between students who have participated in the "GOTCHA" program and initiation of drug use.

A MODEL PROGRAM

These types of programs along with the research design proposals can be used to determine the effectiveness of specific National Guard prevention efforts in reducing the demand for illegal drugs among the youth of our country. Additionally, these recommendations can be used to implement various programs across the spectrum of

drug prevention. The recommended research design for this study is a combination of the Panel Study Design and the Case Study Design. The Panel Study Design could provide for a baseline survey (pre-test) of one or more quasi-experimental groups and one or more quasi-control groups and for the use of follow-on surveys using the course units of analysis at several points in time for both the quasi-experimental and quasi-control groups. These studies may be used to observe and analyze changes over a period of time and to determine the effect of the "GOTCHA" program on the incidence of drug use initiation measuring and comparing the change; henceforth the causal effect, in the process. While this design does not rule out the possible influence that may effect the dependent variable, its conduct in a natural setting may actually strengthen the external validity of the experiment and prove its applicability under actual real-world conditions. The Case Study Design would be used to assess whether the statistical correlation of data found using the Panel Study Design along with survey data, could be used to determine results of students participating in Guard programs and initiation of drug use.

Data on schools selected for participation in the "GOTCHA" Program and data on those not selected such as school names, location, and student listings will be gathered from state and local education agencies, organizations and points of contact from supporting National Guard units and the state National Guard Education and Drug Demand Reduction offices. This data will be used to asses validity of Guard programs in the intervention effort.

Initial baseline drug initiation usage will be determined, using a pre-test followed by maintaining the change in drug initiation rates during the immediate post treatment

period with follow-up monitoring occurring 1, 2, and 3 years after completion of the program. Drug initiation data will be determined by a questionnaire administered to students in classrooms. Immediately prior to questionnaire administration, a test will be used to measure carbon monoxide (CO) concentration in expired air to increase the accuracy of student self-reported drug use. Subsequent surveys will be conducted in the same manner. Data gathered will be original and will measure the degree of drug use initiation in each category. If the purpose of this study would be to determine the overall level of drug use in each category instead of only drug use initiation, ratio or data level measurement could be employed. Data will be analyzed using the same statistical procedures used by Botvin in his study and contained in SAS 6.03 (SAS Institute, Inc., 1988) for general linear models (GLM), multivariate analysis of variance (MANOVA), and analysis of variance (ANOVA).²⁶ MANOVA will be used to determine the pre-test comparability of the test experimental condition for the major dependent variables. Second, the sample in this study will be used to determine the impact of attrition using a series of GLM and ANOVAs. Third, the effectiveness of the experimental prevention program will be analyzed using a MANCOVA with the pre-test scores being used as covariates.

A total of 50 schools from across the country, from urban, suburban, and rural areas, will comprise the sample with 25 in the experimental group and 25 in the control group. An effort will be made to select schools with demographic characteristics that reflect the nation's demographic composition. To determine pre-test equivalence, an overall MANOVA will be computed to determine the relativeness of the experimental and

control conditions with respect to the primary behavioral outcome variable used in this study. Because previous studies of this type have indicated higher attrition may occur among substance abusers, a series of two-way ANOVAS will be conducted to determine the extent to which any potential users might be introduced into this study resulting from differential attrition.

The survey research questionnaire would be the primary method of data collection. The questionnaire would indicate demographic characteristics, ethnic background, gender, socio-economic status, age, psychosocial factors, gateway drug use, cigarette, alcohol, and drug-related behavior patterns, cigarette and alcohol and drug-related attitudinal assessments, prior drug use, reports of any prior arrests or court-ordered suspending, and drug use intent.

CONCLUSION

In conclusion, I believe that there is a definite role for the National Guard in combating drugs among our nation's youth. The key linkage starts in the home, with proactive, involved parental teams. This coupled with an aggressive educational team and creative prevention programs, presents a valid solution to the drug problem among our nation's youth.

The Botvin study, and the ongoing National Guard programs discussed in this paper, are examples of suggested ends, ways, and means to provide our youth avenues of choosing a drug free productive lifestyle. The use of the National Guard provides

positive role models, and brings a unique set of acquired and learned military skills, many of which are leadership based.

The Guard adds value to the whole of our country, and with additional study, research and analysis, can be more productive in the war on drugs. Although not a complete one package solution to this nations drug problem, the Guard can be leveraged, through various intervention programs in each state, to reduce the demand for illegal drugs among the youth of our country.

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